

# **EXHIBIT 1**

NBHJSECH

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

SECURITIES AND EXCHANGE  
COMMISSION,

Plaintiff,

v.

23 Civ. 1346 (JSR)

TERRAFORM LABS PTE LTD., ET  
AL.,

Hearing

Defendants.

New York, N.Y.  
November 17, 2023  
2:00 p.m.

Before:

HON. JED S. RAKOFF,

District Judge

APPEARANCES

U.S. SECURITIES AND EXCHANGE COMMISSION  
Attorneys for Plaintiff  
BY: CHRISTOPHER J. CARNEY  
JAMES P. CONNOR  
LAURA E. MEEHAN

DENTONS US LLP  
Attorneys for Defendants Do Hyeong Kwon and Terraform Labs  
BY: DOUGLAS W. HENKIN  
LOUIS A. PELLEGRINO, III  
MARK CALIFANO  
MATTHEW A. LAFFERMAN  
DAVID L. KORNBLAU

Also Present:

Elliott Bacon, Katten Muchin Rosenman  
Sarah Gonzalez, Paralegal

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1 I haven't analyzed, you know, for example, how Chai accepted  
2 credit card payments or interacted with fiat currency systems.

3 Q In fact, you testified that you did not know how Chai  
4 operated; is that correct?

5 A Correct. Again, my analysis in this case and my opinions  
6 relate to an analysis of source code in Terra blockchain  
7 transactions.

8 Q So you have not analyzed any commercial payment systems  
9 that use fiat, and in this case, you were unable to examine any  
10 part of the Chai payment system other than the single component  
11 that is identified as the LP server; is that correct?

12 A No, I don't believe that's correct. I gave an example  
13 before of analysis that involved a traditional payment  
14 provider, and my analysis in this case involved analysis of  
15 more than just the LP server.

16 MR. CALIFANO: Your Honor, I think I can stop there.

17 THE COURT: Okay.

18 REDIRECT EXAMINATION

19 BY MR. CARNEY:

20 Q Dr. Edman, what did you review in connection with forming  
21 your opinions in this case?

22 A I reviewed data from a variety of sources. This included  
23 source code repositories for components developed by Terraform  
24 Labs, including the LP server, an LP watcher application. I  
25 reviewed internal communications, emails, chats involving the

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1 developers of these systems. I reviewed information related to  
2 a website called Chai Scan, which purported to track Chai  
3 payment transactions, deposition transcripts, really a variety  
4 of sources.

5 Q And is it normal in your line of work for someone to  
6 review, for instance, communications between developers?

7 A Yes. In I would say pretty much every single  
8 investigation, including blockchain-related investigations,  
9 that involves, you know, not just analyzing and collecting  
10 blockchain data, but also adding context to that data by  
11 examining other sources.

12 Q And how is it that you can determine what the LP server did  
13 in this case without the inputs that defense counsel referred  
14 to?

15 A Well, the LP server is just source code and a fairly small  
16 application at that. So I could analyze that source code. I  
17 could look at what it expected the inputs to be, and I could  
18 analyze what it would do with those inputs. It's a  
19 deterministic system. So given certain inputs, you can analyze  
20 the software and determine what the outputs are. In this case,  
21 the outputs from the LP server are blockchain transactions  
22 which are public, and so I was able to identify the properties  
23 of those blockchain transactions based on reviewing the source  
24 code associated with the LP server and then identifying those  
25 transactions on the public Terra blockchain.

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1 Q So just to be clear, did you need the inputs to identify LP  
2 server blockchain transactions?

3 A No.

4 Q And did you do anything to verify your identification of LP  
5 server blockchain transactions?

6 A I did. I reviewed some public posts that were made by Do  
7 Kwon where he identified and pointed to screenshots of certain  
8 transactions on the Terra blockchain and identified them as,  
9 you know, purported Chai transactions. I compared those  
10 transactions and the properties of those transactions to the  
11 properties that I used in my methodology for identifying Chai  
12 transactions on the Terra blockchain and confirmed that they  
13 were consistent.

14 Q Okay. And based on your analysis, did the properties of LP  
15 transactions on the Terra blockchain change over time?

16 A They did. At a high level, there were kind of two  
17 different properties or different characteristics of blockchain  
18 transactions generated by the LP server. Prior to  
19 December 2019, the LP server source code, it appeared to ignore  
20 a merchant ID that was one of the inputs, and it would just  
21 create transactions from an address called the LP wallet. It's  
22 two purported user wallets controlled by the LP server, and  
23 then a matching transaction sending funds back to the LP  
24 wallet. Post December 2019, it started to incorporate merchant  
25 IDs into those transactions.

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1 Q Okay. And just so we understand, if the inputs to the LP  
2 server were not necessary for your analysis, do you have an  
3 understanding as to why the SEC would have requested a copy of  
4 the LP server?

5 A So the copy of the LP server is interesting, aside from  
6 just the inputs, because it can provide a source of forensic  
7 analysis. You can analyze this computer system and determine,  
8 for example, who accessed this system, what they did while they  
9 were on that system, commands that they had run. I identified  
10 certain scripts that were developed alongside the LP server. I  
11 don't provide an opinion in my report whether those were run,  
12 but given access to the LP server itself, based on a forensic  
13 analysis of that, you could determine whether and when and by  
14 whom those scripts are run.

15 Q And did you analyze the source code associates with  
16 additional scripts or programs in the LP server repository?

17 A I did.

18 Q And then, finally, in your report do you offer any opinions  
19 regarding the state of mind or the intent of the developer or  
20 the LP server?

21 A No. I quote in my report statements made by the developer,  
22 but the opinions in my report are really based on analysis of  
23 blockchain transactions, other data produced in this case, as  
24 well as my analysis of what the LP server source code did.

25 MR. CARNEY: Thank you.